APA-TECH #85

June 1993

Border from a clipart collection available on the Internet

June 1993

APA-TECH 85

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APA Policies:

- Minac (Minimum level of activities required) is two somethings per year.
- Issues will be mailed the first week of even-numbered months, so contributions must reach me by the first day of said even-numbered months. Things which reach me late will be held until the next scheduled mailing.
- The next deadline is October 1993.
- The copy count is thirteen (13).

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TRANSPORTER TOPICS

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Number 69

I apologize for missing the last two issues. I couldn't find #82 to make my mailing comments, so I decided to wait. Then, I forgot the deadline for #83. Well, I found #82 and have remembered the deadline this time, so the wait is over.

I have long been envious of artists. I wanted to draw, but couldn't. My hand just would not go where I told it to. I thought I had no talent. Turns out I had nerve damage. Last October I had surgery to restore the feeling in my right hand, and am learning to draw. Now, no one is safe.

I have learned several important lessons about drawing already. One of the hardest - and most important - of these is that adding detail can actually make a drawing less realistic. Some other important drawing lessons: When you can't get it right, smudge. Fur and long hair can go a long way in covering weaknesses in skill. Normal clothes are generally harder to draw than skin or "superhero" clothes.

I already have "Drawing on the Right Side of the Brain" and "How to Draw Animals" and have found both to be very useful. "Animals" has a large section on cats in general and tigers in particular. Rowr.

One side effect of learning to draw is that the images in my dreams are becoming more detailed and realistic. I have always had vivid dreams, often in full color and occasionally lucid. (That is, I know I am dreaming and can affect what happens.) Now I'm making my own movies.

The accelerator board in my computer is doing fine, but there is a related problem that isn't it's fault. I removed the old hard disk when I installed the new one, but left the controller in place, because it had two meg of RAM. Unfortunately, there is some incompatibility, because the Amiga occasionally looses track of that two meg. If there is software stored there, the computer crashes. If I happen to be writing to disk when this happens, the disk gives me a checksum error. I have to format it and restore from backup. (Any Amiga users out there who can tell me how to get around this?)

So, I removed the old controller board. I figure the problem could be solved by resetting a jumper. Problem is that I don't have any docs for the board, so I don't know which jumper or how it should be set. Until I can afford to add more RAM to the new controller board I'll just have to limp along on two meg.

Mailing Comments

Issue #82

Crumbcrunchers: While I haven't worked with a child in the office, I take my 7 year-old niece to karate class. Since I often teach the children, this means I am working with her a lot. This has earned me a great deal of sympathy for grade-school teachers. * Technical and drafting pens can often be "ungunked" by soaking them in cocoanut oil cleaner for a day or two. * On the other hand, I have recently been using some disposable art pens with very fine points, down to 0.1 millimeter, which work well. * No more animal adventures, except for getting my cats vaccinated. Christine, the youngest, somehow twigged to what was going on and vanished outside an hour and a half before the vet arrived. Ever try to find a mostly white cat two days after a snow storm? Later, I tried to box her up to take to the vet, and she escaped, biting me twice in the process. While I was bandaging myself, the phone rang. It was the vet, wanting to know if I was coming. I told him the problem, and he came over. By the time he got there, I had decided to have Christine put down. The vet had experienced her behavior problems for himself, and agreed to do it. I pride myself on being a pragmatist, but that was very hard. My sister uses the same vet, and he later told her that he was surprised I had kept Christine as long as I had. *

Second: You had to ask, didn't you? (-: * Well, with el nino done for now and the sunspot cycle fading, we were due for some cooler weather. Combine those factors with the volcanic dust still in the air, and the winter was bound to be harsher than the most recent few. Despite all this fuss about global warming, humans have very little effect on the world's climate. *

Review of "Confessions": I have been an environmental activist for over twenty years. I have donated money, written letters, proselytized, planted trees and avoided pesticides and fertilizers. Yet I have stopped calling myself an environmentalist because of the actions of such people as Dave Foreman. Instead, I refer to myself as a naturalist. * Unfortunately, it is not only the eco-extremeists who are immune to rational analysis. In fact, this mind-set seems to be the rule for humanity, instead of the exception. How else can you explain why someone someone driving a subcompact would argue right-of-way with a semi? Or why anyone would try to beat a train to a crossing? Or claim that disarming citizens is the only way to protect them from criminals? Figures don't lie, but people not only lie to each other, they lie to themselves. *

Issue #83

Dr. Gonzo: Welcome back. * I remember fondly the one year I managed to make it to Tullio's for the New Year's party. Maybe someday I'll return. (Consider this fair warning.) * Since most

hand-helds now use chips and soldiered boards instead of discrete components, I don't understand why manufacturers don't just pot the entire thing. Epoxy mixed with hollow glass beads wouldn't add much weight, and heat buildup shouldn't be much of a problem with a small portable. It would certainly cut down on vibration damage and such. You could do it in sections, so that you wouldn't need to have any larger chunks replaced than you do now. * I've been looking at cameras, thinking about getting a second one to supplement my current Minolta. I am going through much the same process as you did with your 2 meter rig. I want a new camera with automatic focus and aperture control, plus manual overrides for when I know better than it does, and a built-in flash, and maybe a motor drive. I plan to stick with Minolta; my current camera has provided more than ten years of good service. The model is even still being made! My current unit would be saved for convention masquerades, with the new one used for snapshots. * I hate to drive my Mother anywhere. She always says "Roddy, you better slow down!" a full half second after I put my foot on the brake. Consistently. Every time. Aarrgghh!! *

Der Mann: I am just now unpacking some of the stuff I stashed in my basement when I moved in here, ten and a half years ago. And I was only going from one side of town to another! * "If you love your wife, keep your batteries charged!" Y'know, there is a whole gamut of naughty jokes I could make about that observation, but I think I'll show some restraint. * The 21st century will have more in common with the 19th than with the 20th. *

Crumbcrunchers: I have only one grandparent left, my maternal grandmother. She will probably see the turn of the century, at least. I may complain about the health problems I inherited from my mother's side of the family, but they also tend to live into their eighties and nineties. * I just happen to have my copy of the '93 Writer's Market out; my sister (who also has aspersions of being a famous writer) called to ask for an address. Yep, you're in there. Long entry, too. Longer than the one for the book publisher my sister was asking about, by a sizeable margin. Gee, does this mean you're more important? (-: *

Second: Don't'ja just love rebellious appliances? My dishwasher has developed a nasty habit of continuing to input water throughout the cycle, instead of shutting off when full. It has flooded the kitchen three times. Well, it was free. * Sorry to hear about your health problems and surgery. I'm glad the operation was a success. I recently had surgery, of a different sort. See above. * Relatedly, the deadbolt on my back door recently broke, locking me out. I had a key to the front door, but it was also chained. I unlocked the door and broke the chain. I never have put much faith in those things. I was going easy to avoid damaging the door, and it still snapped on just the second shove. Since then, it's been new deadbolts all around. *

Marking Time: I envy people with unusual names. As for being cartoon-like, it does sound a bit like "Popnecker," as in Herbie. If I ever get professionally published, I'll use my first and

middle names: Rodford Edmiston. Much more memorable than Rod Smith. *

Environmental Moderation: See my comments to you above, and my general remarks under "The Human Animal" below about why people follow charismatic leaders. * MTV has been running pro-green commercials. One of their messages is "Solar power is clean." Really. I suppose they never heard of the solvents and heat treatments required to work with silicon, which is a rather recalcitrant material. *

The Human Animal

Being a generalist has its advantages. My study of natural history, combined with what I know of psychology and simple observation of humanity, has helped me formulate explanations for certain human behaviors that used to puzzle me. For instance, ever blow your top because someone beat you to a parking space? That was probably your instinct to defend your territory coming to the surface. Men who are extremely possessive of their wives, to the point of beating them, are blindly following an inappropriate instinctive pattern. I have seen many examples of people scuttling an idea simply because it would make someone else look good. Not at their expense, mind you; in fact, for many of these cases they, as a supervisor, would also benefit. However it would advance someone "inferior" to them, and they don't want to change the "pecking order."

An interesting phrase, that. It is used as a joke, but dominance plays a very important part in our society. While it normally isn't as obvious as it is among wolves of chimpanzees, it is there. If you pay attention, I'm sure you can spot instances just about every day. Consider this a class exercise. Watch someone do something which seems irrational, and ask yourself which instinct is driving this behavior.

Game Physics

I am currently working on a set of scientifically accurate rules for spaceflight, and related high-technology. I have managed to dig up or calculate most of the basics, but need someone to check my work. I want rules that could be used to <u>teach</u> physics. Anyone know of a good reference? Some of the things I have so far (excerpted from the rules):

Power: $E=mc^2$. This tells us that there is energy in matter. Not the piddling amount stored in electron bonds that we get with chemical reactions, but really <u>useful</u> amounts. One gram yields about 8.9×10^{13} Joules, or about 2.4×10^{7} kilowatt hours. I'll leave it as an exercise for the student to calculate how many millennia this would run the average American household.

Fission liberates only a small fraction of one percent of this. However, compared to fusion and AMC generators fission

units are fairly simple, rugged and reliable. They would be still be around once the other two methods were in use, primarily for slow freighters.

Fusion comes in several types, but for the most part we will be concerned with those using hydrogen as the main ingredient. The most basic yields about 1.3×10^{12} Joules per gram, about 1/137th the energy from total conversion. The most generally used form of fusion produces 6.9×10^{12} Joules, or about 1/25th as much as AMC. An advanced, multi-fusion reactor will squeeze nearly 5% of the energy of conversion out of a gram of fuel, producing 8.5×10^{12} Joules. However, these plants are bulky, very advanced and usually relegated to ground installations or very large ships.

AMC produces 1.78×10^{14} Joules per gram of antimatter. This is double the amount of energy actually in the mass of the antimatter, because the normal matter it reacts with is also converted.

Propulsion: Rocket engines (reaction drives) are the most practical form of space propulsion until EDL 9, when the first reactionless thrusters are developed. At EDL 10, when antigravity becomes available. The absolute best rocket engines are no more than about 40% efficient, meaning that more than half of the energy generated by the drive is wasted, mostly as heat. Ion and photon drives are more efficient, but produce less thrust for the same size unit. This is due largely to the fact that the power generated must be converted to a form usable by the drive, and that takes extra equipment.

While fusion can be used pretty much as is for a rocket - simply directing the expanding plasma through a nozzle - for AMC you need to add reaction mass for most efficient use. This means that about 100 times as much reaction mass as antimatter must be included. This can be hydrogen or water or something similar. For best use of fusion drives, a much smaller supply of reaction mass can be included, for producing brief periods of high thrust. So, the mass of fuel plus reaction mass is about the same for both power sources. The real advantage of AMC is that at PhyDL 10 and late PoDL 10 a society gains the ability to produce antimatter easily and cheaply (in terms of power required). Therefore, anything can be used for fuel.

Sublight Travel

With the sustained thrust available from fission, fusion or AMC power sources, spaceflight becomes very easy. When constant accelerations of 1/10th g or more are used, flight times drop dramatically over the older "boost and coast" method, and calculating flight times and courses becomes much easier. Look out, here comes more math.

The energy required for Low Earth Orbit (LEO) is 3.564×10^{4} Joules per gram, for a velocity of 7400 meters per second. Earth

escape velocity is 11,200 m/s and requires 6.272×10^4 Joules. This latter is starting from the surface; starting from orbit you subtract the energy required to get you there.

If you really want to calculate the energy required, instead of using the tables and simplified equations below, use the equation $W = E_k + E_p = (1/2\ m_v v^2) + G \times m_v \times m_e \times ((r_2 - r_1/r_1 \times r_2))$, where W is the work done, E_k is the kinetic energy, E_p is the potential energy, m_v is the mass of the vessel, v is the change in velocity, G is the gravitational constant (6.673×10^{-17}), m_e is the mass of Earth (5.98×10^{27} grams), r_1 is the initial distance and r_2 is the final distance.

W = mad. Work equals mass times acceleration times distance. Assume a typical spacecraft of 5×10^9 grams. Accelerating at 9.78 meters per second per second (one g) for one hour with a 40% efficiency requires 1.12×10^6 grams of hydrogen or 4.35×10^4 grams of antimatter. You can see that this requires a sizeable portion of the ship's volume to be devoted to fuel. Even antimatter is bulky, when you add in the reaction mass. Most ships don't accelerate at more than 1/10th g except for brief bursts. The primary exception is luxury liners, which use around 1 g during sublight travel.

Traveling between bodies sublight requires $t = 2X(d/a)^{.5}$. Note that this assumes accelerating halfway, turning over and deccelerating halfway. The change in velocities involved is so great, even with only 1/10th g acceleration, that correcting for different orbital velocities is trivial and can be ignored for game use.

On developed worlds travel to and from orbit is via a mixture of shuttles, loops and beanstalks.

FTL

In order to make transition to a ship must move away from any massive bodies, to reduce the vacuum energy level to a point where the FTL drive can operate. Since the gravitational attraction between two bodies is proportional to the mass of both bodies, smaller ships can generally make transition closer to a large body. However, the mass of a ship is so small compared to that of a planet or star that the difference can be safely ignored for game play.

Using the same ship as above, the distance a first generation ship must travel away from Earth is 3.24×10^8 meters. That's not too bad; a little closer than Luna. However, the distance such a ship must be from Sol is 1.87×10^{11} meters. This is slightly more than one AU (the average distance from Sol to Earth) and we are already 1.50×10^{11} meters out. You just accelerate directly out from Sol for an additional 3.7×10^{10} meters.

More advanced drives can make transition closer to a large mass. Typical values are shown on the table below, along with travel times and fuel required.

$T = (2X(d/a))^{.5}$; v = at. With 1/10th g of constant

acceleration, time required is 3 days, and the velocity at transition is well above the escape velocity of both Sol and Earth.

Real-World FTL

Note that I include the use of faster than light travel in my game rules. I now have some actual, laboratory evidence that this might be possible. An experiment recently performed at Princeton had light travelling slightly faster than it is supposed to. In a vacuum chamber, a device was assembled which lowered the vacuum energy potential in a small volume. A laser beam passed through this device got to the other side a bit faster than the textbooks say it should.

Games For Sale!

No illustrations, thick covers or fancy artwork. Just words and the minimum of maps needed. The documents are double-spaced, for easy reading and to allow room for your notes. To order, simply send the amount listed below to my address. Postage is included in the price.

Title	Description	Pages	Price	Maps
Interworld	Basic rules	69	6.00	N/A
Gateways	Alternate Universe Exploration	14	1.50	1 L
Gifted Saga	Magic is unleashed upon the contemporary world	54	5.00	1 L
Playing The Game	Referee's notes for the Gifted Saga	29	2.50	N/A
Ostland	Adventure in a fantasy world	5	(Work in Progress)	
Future Gifted Saga	Explore the future of the Gifted Earth	12	(Work in Progress)	
Developmental Levels	How to evaluate a society according to it's achievements in science, medicine, etc.	15	(Work in Progress)	
The Coup	A major Gifted Saga adventure	8	1.00	1 L

Items indicated as "Work in Progress" are not yet for sale, but are available for test play to anyone who agrees to send me a report on what they think of the module. To get a copy, send an SASE with sufficient postage for the number of pages.

Flying Side キック

Flying Side kick

RZ
5/93

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Late March, 1993

Hope everyone survived "the blizzard of the century" with no ill effects! Marlene saw more snow at one time than she'd seen in all her eight years, and got numerous occasions to go sliding. Other snow-related events we participated in included making snow ice cream, something I'd longed to do ever since I was little. I suppose a steady diet of snow ice cream wouldn't be an especially good idea, but the two batches we made were exciting and tasty. We were hoping to have another chance to try a variation -- perhaps adding chunks of pineapple to the mix -- but the snow melted so fast that two days later all that lingered were dirty piles of the stuff by the roadsides. For us, it was just fun; for my parents who live in upstate New York, and a colleague who was stranded in North Carolina, where he'd been attending a conference, it was a bit more traumatic.

Mild weather now seems to have set in for good, and our daffodils are either blooming or getting ready to bloom. I remember one year when it snowed in May, so I shouldn't speak too soon! At the time, a life-long Ripley resident who recently celebrated her 96th birthday said she'd never experienced a snowfall so late in the year.

On the family front, we've made it to the "no more diapers, at least during the day" milestone. Dora is a very independent little critter, and insists on taking care of all her needs herself, at least as far as possible. She frequently dresses herself without assistance, though she often gets things on backwards. She finds not being able to tie her shoes terribly frustrating. She's definitely got untying them down to a science; once they're untied she removes the laces and carries them off. I've lost more shoelaces this way, and have to keep borrowing from my own shoes!

Marlene just brought home her third quarter marks, all As and Bs with a note from the teacher reading "Get your work done on time and get all As!" I've come to the conclusion that the teacher is simply tired of teaching and is more or less going through the motions. I imagine she's starting to think about possibly moving on to something else; she's in her middle 50s, I'd say. Coming from a family of teachers, I know what teacher burn-out is about, and am well aware how easy it is to simply fall into a rut.

Being able to sympathize with the teacher, however, didn't prevent me from leaving the last parent-teacher conference absolutely seething. All the grade school kids are required to do a science project, which in principle is a wonderful idea. Though Marlene and her classmates all had to do projects, they received no guidance from the teacher beyond a list of suggested projects that was sent home. The parent-teacher conference was two days before the science fair, and Marlene's teacher spent several minutes trying to persuade me to persuade Marlene to change her project topic!

On the other hand, Marlene gets a lot of delight out of many of the things she's learning, and finds division absolutely delightful. (I think her Speak and Math has a lot to do with her friendship with mathematics, which I think is terrific. I wish I'd had one when I was eight, then I wouldn't have come to believe that I was incredibly stupid in math!) The teacher also reads aloud to the class for about a half hour after lunch, and I hear excited accounts of what's happening in the books she reads. Right now they're reading *The Boxcar Children,* which is the

first of a series of mystery books, all about the same family. Somehow I missed these books when I was a kid, though they were definitely around; the first book is © 1942. But then, I didn't know about Mary Poppins, either, until the movie came out! Marlene insisted that I read *The Boxcar Children*, and checked a copy out of the library just for me. It was an interesting read, because the style is SO DATED. It's fascinating to realize how much writing for children has changed in 50 years time. I read a lot of children's literature, of course, and have grown accustomed to the down to earth, realistic styles of authors like Lois Lowry and Cynthia Voight, both of which are very different from that of the author of *The Boxcar Children*. (Sorry I can't remember her name; I'm sure that some of you who were Boxcar Children fans as kids have it at the tips of your tongues and are thinking what a dummy I am not to be able to remember!)

On my own reading front, I've recently finished *The Second Self* by Sherry Turkle. (I think the subtitle is *Computers and the Human Experience.*) This book is a fascinating look at how our lives have become so intermingled and entangled with computers, that these machines have caused humans to re-evaluate who they are. Turkle is an MIT sociologist and psychologist; I imagine there are those of you in this APA who are personally acquainted with her. She interviewed literally hundred of people trying to discover how they felt about computers -- little kids, hobbyists, hackers, students, programmers, etc. I especially enjoyed her chapter on hackers, which gave me some insight into the joy of hacking. I liked the story of a student who had a crush on a psychology major. He managed to insert a virus of sorts into her account, based on ELIZA, the computer psychologist, so that whenever she tried to do any work, ELIZA would take over and tried to conduct a "therapeutic session." He thought it was terribly amusing, until the girl figured out what was going on, and he then had to spend many hours repairing the damage he'd done.

I happened on this book by accident; I was looking for something on artificial intelligence, to put in the Additional Reading section of the next HOBSON'S CHOICE. (We've got a story about a talking computer a la HAL. I won't say any more than that, except that it's by Stuart Napier, who's fairly well-known in the SF small-press world. I think he's been a Writers of the Future winner or at least a quarter finalist more than once.) I had been rather perturbed to discover that the only book in the library card catalog under this subject heading was an astronomy book dealing with SETI! So I rather idly browsed the shelf with computer books on it, pulling out ones with likely sounding titles and reading their blurbs. It's amazing the number of fascinating books I'm able to find using this aimless and haphazard research technique!

Speaking of this latest issue, I'm working away on it. I'd hoped to have it all put together by the end of March, but guess it'll be pushed up to April now. I snatch every chance I can get to work on it, and really wonder how I'll be able to work my way up to a monthly schedule! As always, I'm incredibly behind on reading submissions and sending back what we call homeward bounds. (I once thought of writing a little song about homeward bound stories, to the tune of the Simon and Garfunkel song, but never got further than "Homeward bound, this story is homeward bound." Now I can barely remember how the tune goes, having foolishly sold all my Simon and Garfunkel records at a yard sale years ago!)

As usual, the APA is where I'm not, so unfortunately, no mailing comments. Maybe next time I'll be more organized! Be well and happy.

Susannah

CRUMBCRUNCHERS addendum

Late May 1993

I noticed that last time I said I have no interest in CMT! Well, I've had to acquire an interest, willy-nilly, whether I like it or not. Marlene has suddenly developed a passion for CMT, and will sit engrossed by the videos by the hour. She frequently prefers the channel to Nickelodeon.

The babysitter listens to a local radio station that is very "down home and folksy" and the music format is, of course, country. So after listening to the music all day, of course Marlene picks up on tunes and memorizes the words. And we get the lyrics to "Achy Breaky Heart" and "Take It Back" warbled at us.

She's also discovered comic books. She decided one day to take all Dave's comic books out of their boxes and "organize" them (something Dave didn't approve of at all!). She watches the "X-Men" cartoon on Saturdays, so showed some interest in the "X-Men" comics, but very quickly zeroed in on "The Power Pack." I'm not even sure Marvel's publishing this title anymore, but at least while we were collecting comics, we tried to keep up to date with "The Power Pack." Result, there are probably twenty or thirty of them, which Marlene has been reading avidly. I'll have to gather them up (they're scattered all over the house right now) and stash them away again, as they're starting to get beat up.

I myself didn't get bitten by the "comic book bug" until I was in college; although I never asked, somehow I got the distinct impression that reading comic books was simply not something that a child should be doing. (Though "Classics Illustrated" somehow didn't fall into the category, and when we went on long trips, my parents bought us some of these comics to keep us occupied. In fact this was my original introduction to *Jane Eyre* and *Tom Sawyer*. My sister and I read those comics incessantly when we went to the West Coast when I was nine. By the time we got home, I had practically memorized the dialog, and was very eager to read both books. Surprisingly, the comics had stuck very close to the plot, which I discovered was not always the case.)

Marlene's "poky problem" stays with her. The teacher marks her down or gives zeroes for late or uncompleted work, she says. However, though the teacher has mentioned that Marlene's marks may be poor, because she hasn't completed work, either what she does do is good enough to pull her marks up, or the teacher relents. Who knows?

We're starting to hear stories about unreasonable punishments for apparently trivial infractions, but again, who knows? I've observed before that Marlene sometimes perceives things in a very irregular manner, and when she tells us (or the babysitter) her account of what went on, it may not have happened like that at all. Meanwhile, I think the teacher has pegged us as "troublesome parents" because we question her techniques at times. I personally think that everybody's really eager for school to let out, and the impatience is affecting teachers and students alike! Fortunately there's just a little bit more than a week to go.

My grandmother's antiques continue to be dispersed. We recently received a box containing all sorts of things, including gifts which I had given her over the years, and had thought I had chosen with such care. Things like a sunbonnet to keep the sun out of her eyes when she sat on the patio, and fuzzy slipper socks to keep her feet warm in the winter. Both of these were in their original wrappings, and had pretty obviously never been used. This made me sad and also have caused me to doubt my abilities for choosing gifts.

In the same box was a packet of notecards I'd made for her when I was in high school, a birthday card I'd sent her, a book she'd received as a prize when she was ten, some prints that had belonged to my great-great grandmother, the Bible my grandfather gave her before they got married....

I'm currently reading Thich Nhat Hanh's *The Miracle of Mindfulness* (subtitled *A Manual on Meditation*). It's very interesting in that he explains in simple terms how to meditate, something that I've never read elsewhere. It's not that easy to put into practice, I can tell, as when I try to keep my thoughts focused on one task (which is what he calls mindfulness) I find them skittering all over the place.

He talks about how to be fully aware while doing all sorts of simple tasks which you would normally grumble about and think only about what you were going to do later while you were doing them. Things like washing dishes, housecleaning, washing your clothes....

So many of his statements are so exquisite that I wish I could write them all down. I may end up simply photocopying the entire book, even though it's 100+ pages long, because it's the sort of thing I doubt I'd be able to find in a bookshop, and I have to return it to the library I borrowed it from soon.

The book was written originally as a long letter addressed to the monks and novices of his monastery in Vietnam. I like the fact that he doesn't have the condescending tone which I've noticed other writers tend to use. Even Alan Watts, who did so much to acquaint Westerners with Zen, frequently waxed condescending in his writings. (He also wrote books with wonderful titles like *The Wisdom of Insecurity* and *Behold the Spirit* which I find incredibly "boggy.")

I'm working on the next issue of HOBSON'S. It's been sort of slow because when I pasted it up and made a proof copy, I didn't like it at all. So, back to the drawing board. I have the next issue after this one fairly well worked out as well....Now if I can only find the article that I want to go with the fiction, all will be well (you think I'd be able to -- I have two copies of it, plus it's on a computer disk somewhere!). My main problem is $$, of course, even though, compared to other people, I'm not on a shoestring budget, I'm on a thread budget! I'm scrounging to find $150, and some poor people spend $900 putting out a single issue! (Of course, it's all relative, since their publications contain more pages, probably have slick, color covers, and are photo-offset, not photocopied!)

Well, I see the end of the page approaching, so be well and happy!

Susannah



At the last possible second . . .

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Voice: (313) 589-8174 • Data: (313) 589-8228 June 1993 • Vol. 1, No. 18

What is this angus.mi.org and why do you spend so much time with it?

Audrey and I are the owners and operators of angus.mi.org, a small public access unix system. We didn't start out to establish such a system, it sort of evolved. In order to understand how we came to set up a computer system that takes so much of our spare time, I'll go back and explain how we got to where we are today.

Years ago, when we first moved to Detroit, we spent a fair amount of time at friend's homes. Nothing unusual about this. As it happened, most of our friends have an interest in computers and we would, at various times, discuss software packages that we liked. Frequently, someone would ask, "Could someone get a copy of that for me?" Usually, somebody would announce they had that software on their computer. Often, that somebody was me. The problem was that I was one place and my computer was somewhere else.

My solution to this was to leave my computer on 24 hours a day. If I wasn't using it, I would run a communications program that was set to a mode where it would answer the phone and let someone issue some minimal commands from another computer. The software provided a simple password check and the ability transfer files over the phone lines. This was as much as I needed.

At the time, we only had one phone line, so it was a little tricky having the telephone/answering machine and the computer on the same line. We worked out a routine that involved calling, hanging up, and calling again right away if we were trying to connect to the computer. This set-up allowed us to have remote access to our home computer system. It also provided limited access to people we trusted.

For almost a year, this arrange was sufficient. I don't remember how many times I was at Bob & Connie Trembley's and called home to pick up the latest version of something that Bob didn't have. "Why," I wondered, "would I ever need anything more than this?"

The answer came in the form of some friends who were working on a project together, but didn't live close to each other. Since I was working with them on this venture, I offered to set up my home system as an electronic bulletin board system (BBS). It would be available on the same basis as before, but would have better control over files and access control.

Later, we decided that a second phone line would be a good idea since I often dialed into my employer's computer at night to fix problems. Since the second phone line was designated as a computer line, it made sense to have the BBS running any time I wasn't using the line for calling into Ford's computer system. Thus we ended up with a (mostly) 24-hour BBS.

Having the computer available most of the day on a dedicated phone line changed the whole focus of the BBS. I no longer had to give people strange instructions on how to connect to our computer; we now had it set up to answer the line on the first ring. We encouraged our friends to use the computer as a message board, leaving each other electronic mail. We even set up a few conferences where people could post public messages and discuss topics as a group.

At this point, our BBS was still a stand-alone system. That is, it did not communicate with any other computers for the purpose of automatically passing files back and forth. This meant that the users could only send e-mail to other people on our BBS. Audrey and I were interested in being able to communicate with friends scattered across the country. In many cases, these were people who we exchanged e-mail with when we were in college and we missed doing this. The quest for network access was begun.

After talking to several people in the area, we found out that a friend of ours a mile up the road operated a major e-mail hub for the northern- Detroit suburbs. A couple of weeks of testing software and getting our BBS configured properly and angus.uucp was born. We now had access to the Internet/UUCP network, a worldwide network of computers ranging from personal systems like ours to large mainframes in government and universities.

These days, our system is known on the net as angus.mi.org. We have a few users on the system who are able to exchange e-mail with people on virtually any other major computer network in the world (except Prodigy). In addition, angus.mi.org carries over 300 Usenet newsgroups — forums for public discussion of topics ranging from cooking to politics to programming. Just about anything you can think of.

This increased access to the rest of the world has its price. We are still using one phone line dedicated to angus.mi.org. The biggest problem we have is that one phone line is not enough. We now spend so much time talking to other computer systems, exchanging e-mail and news, that the people who use our system have a hard time connecting to it. The phone is busy far too often. The problem was compounded by the fact that angus would spend 2 hours communicating with another computer, then spend another hour processing the information it had received. On top of all this, angus receives so much news that we would frequently run out of space to store the information.

As the BBS matured, Audrey and I decided that we really liked providing people with access to "the net." For the last couple years, we've been giving people access free of charge. Some generous individuals have pitched in to help us meet the costs of running the system; we really appreciated this. Last year, it cost us around $1200 to operate angus.



We are now in a state of transition. After deciding that we couldn't keep operating the system at such a loss, we decided to enforce a pay-for-use policy for most services. We still plan to provide people with e-mail at no cost, but will ask people to pay part of the cost of the more expensive services.

In order to justify this, we have to make angus available more often than it has been recently. This is where a lot of the cost of maintaining the system comes from. In order to increase people's access and deal with the amount of news that is coming across the phone line, we are planning to:

- Increase online storage by over 500% (from 240 megabytes to over 1500 megabytes). We already have the new large disk drive to handle this. We just need to find the time to install it.
- Restrict the hours we are communicating with other computer systems. We can do most of the data transfers at night and free the phone line up during the day.
- Add another phone line (and the required communications hardware to go with it). This will let us get back to communicating with other computers at any point during the day, thus allowing us to get e-mail and news as soon as it becomes available.

After all this explanation, one important question remains unanswered ... "Why?" Well ... because? Not really a satisfactory explanation. When it comes right down to it, we want to help people keep in touch with each other. Until I graduated college and settled down in southeast Michigan, the longest I had ever lived anywhere was three years. As a result, keeping in touch with people is an important thing for me. If I can help other people keep in touch with friends and family, it gives me a good feeling. This is the reason I started the electronic mailing lists on angus.mi.org. We currently coordinate mass electronic mailings for seven groups.

I also am a news junkie. I like to keep informed and like to help others stay informed. Audrey shares my views on keeping people informed and giving them access to the electronic community. With her support and assistance, I am able to provide that access.

What is happening to APA-Tech?

Things have been pretty quiet lately. It might be time to discuss the future of APA-Tech and see just how committed we all are to keeping this thing alive.

APA-Tech grew out of a frustration with the less than satisfactory publication schedule of Pyrotechnics. Since Pyro has been well-managed for some time now, it might be time for APA-Tech to go on hiatus. Should we stop publication for a while? Go to a quarterly schedule? I'm interested in what the rest of you think.

Bye for now,

gabe@angus.mi.org (Gabe Helou)